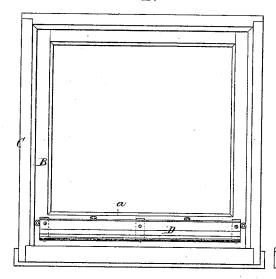
## E. G. CALDWELL.

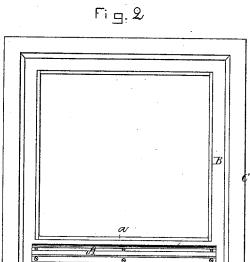
## WINDOW VENTILATOR.

No. 265,217.

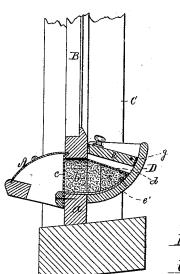
Patented Sept. 26, 1882.

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Inventor Edward G. Caldwell by R. M. Edy ally.

Vilgesses. S.N. Pipu Ellett

## UNITED STATES PATENT OFFICE.

EDWARD G. CALDWELL, OF NEWTON CENTRE, MASSACHUSETTS, ASSIGNOR TO GEORGIANNA D. CALDWELL, OF SAME PLACE.

## WINDOW-VENTILATOR.

SPECIFICATION forming part of Letters Patent No. 265,217, dated September 26, 1882.

Application filed May 3, 1882. (No model.)

To all whom it may concern:

Be it known that I, EDWARD G. CALDWELL, of Newton Centre, in the county of Middlesex, of the State of Massachusetts, have invented a new and useful Improvement in Windows or Ventilators therefor; and I do hereby declare the same to be described in the following specification and represented in the accompanying drawings, of which—

Figure 1 is a front elevation, Fig. 2 a rear view, Fig. 3 a horizontal section, and Fig. 4 a transverse and vertical section, of a railway passenger-carriage window provided with my

invention.

In this window the sash is an integral portion of the ventilator, the remainder of which is movable with the sash while the latter may be in the act of being moved either upward or downward in the window-frame. A ventilator separate from the window and readily removable therefrom, though placed between the sash and the sill of the car-window, could be easily abstracted, stolen, or displaced, and would be liable to be lost. For various good reasons it is not desirable to fasten the ventilator to the car-window frame and have the sash rise therein independently of the ventilator.

In carrying out my invention I fix the hood 30 A of the ventilator to the outer surface of the lower bar, a, of the sash B, arranged, as usual, in the window-frame C, such hood being open in its lower part or base. The said lower bar of the sash has one or more long slots or open-35 ings, b, in it, each of which has within or fixed to it a strainer or foraminous pane, c, of meshed woven wire. To the rear side of the lower bar of the sash a trough, D, quadrantal in transverse section, is fixed, such trough 40 having in and across it, and just above the strainer c, a strainer or foraminous plate, d. The trough has to its mouth one or more valves or covers, e, each of which, hinged or pivoted to the trough, can be turned from a horizontal 45 up into a vertical position. The edges and ends of each of such covers have strips g, of india-rubber or cloth, fixed to them, that on the front edge, when the cover is down, I

bearing directly against the lower bar of the sash. The space between the two strainers of 50 the trough is filled with a loose fibrous material or pieces of sponge, e', such filling serving to intercept any dust that may pass into the ventilator. On raising either or each of the covers of the trough (the drawings representing the trough as provided with two of them, and with a partition, f, between them and in and across it) air will usually pass through the ventilator into the car. So when a cover is raised water may be poured into the trough, 60 and after the fibrous material or sponge may be saturated therewith the surplus water will flow off or be discharged through the vertical strainer and the hood.

What I claim as my invention is as follows, 65

viz:

1. The combination of the sash, provided with one or more openings through its lower bar, and with a strainer to each, with the hood and the trough and its cover or covers, ar 70 ranged on opposite sides of the said lower bar.

2. The combination of the sash, provided with one or more openings through its lower bar, and with a strainer to each, with the hood and the trough and its cover and auxiliary 75 strainer, arranged on opposite sides of such

lower bar, as set forth.

3. A ventilator provided with a hood and a trough, and a strainer between them, as described, and having one or more covers piv-80 oted to the trough, and arranged so as when down to abut against the lower bar of the win-

dow-sash, as set forth.

4. A ventilator provided with a hood and trough and two strainers, and a filling of sponge 85 or fibrous material arranged between the said strainers, and also having one or more covers to the trough, and each of said covers arranged so as when down to abut against the lower bar of a window sash to which such 90 ventilator may be applied, all being substantially as set forth.

EDWARD G. CALDWELL.

Witnesses:

R. H. EDDY, E. B. PRATT.